

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
CONSTRUCTION DAM & BYPASS PUMPING

C&T:TWK

1 of 2

C&T:APPR:DMG:JAR:04-05-05

a. Description. This work consists of designing, installing, maintaining, and removing construction dams (including dewatering) and bypass pumping to work in a dry condition and to maintain water flows. This work shall conform to Section 208 and 704 of the Standard Specifications for Construction, MDEQ Permit, as directed by the Engineer and this special provision.

b. Materials. Steel sheet piling shall be of the continuous interlocking type, either new or used in good condition. Temporary steel sheet piling shall have a minimum nominal section modulus of 18.1 inches cubed per foot of wall. Cold-rolled sheeting will be permitted for all applications.

Geosynthetics	910
Sand and Stone Bags	916
Coarse Aggregate, 6A.....	902
Open-Graded Aggregate, 34R	902
Filter Bags	910

c. Construction. The Contractor shall install a construction dam, at the locations specified on the plans, in order to provide a dry construction site. The construction dam shall only consist of one of the following: steel sheet piling, stone / sand bags, or an MDOT approved proprietary product.

A. Design and Installation. Design, installation, maintenance and removal of the temporary construction dam, dewatering, and bypass pumping are the responsibility of the Contractor. In accordance with subsection 104.02, the Contractor shall submit a proposed design to the Engineer for review 10 working days before starting work. Work may begin after the Engineer=s acceptance of the design.

B. Dewatering and Bypass Pumping. The dewatering and bypass pumping operations shall be performed in a proper and predetermined sequence such as to create a stable area to work in. Dewatering and bypass pumping rates shall be the responsibility of the Contractor. Dewatering and bypass pumping shall be performed and sufficiently maintained so as to not cause harmful affects to up and down stream properties, utilities, and pavements. The consequences of surface runoff and surface flood water caused by climatic conditions must be taken in to consideration in designing the dewatering and bypass pumping system.

C. Filter Bags or Sediment Traps. Dewatering and bypass pumping operations shall utilize a sediment basin or filter bag to settle out / filter out sediment from water discharged into the watercourse. The sediment basin or filter bag shall be located a sufficient distance from the watercourse or wetland to allow for proper settling or filtering through natural vegetation and/or gravel filter berm. The sediment trap or filter bag shall

be provided, installed, maintained and removed as described in Section 208 of the Standard Specifications for Construction.

A series of Gravel Filter Berms shall also be used in conjunction with the sediment trap to filter the water prior to re-entry into the watercourse.

The Sediment Basin and Gravel Filter Berms must be of adequate size to still the water for a sufficient time to remove the suspended particles. If the water returning to the watercourse remains turbid, the Sediment Basin may need to be expanded. A second Sediment Basin may be required in conjunction with a Filter Bag, in addition to the original Sediment Basin and Gravel Filter Berms.

d. Measurement and Payment. The completed work as described will be paid for at the contract unit price for the following contract item (pay item):

Contract Item (Pay Item)	Pay Unit
Construction Dam	Each
Bypass Pumping	Each

The contract unit price for **Construction Dam** includes designing, furnishing, installing, maintaining, and removing the temporary construction dam, including dewatering and filtration as noted in this special provision.

The contract unit price for **Bypass Pumping** includes designing, furnishing, installing, maintaining, and removing the required materials, supplies, equipment needed to maintain the watercourse while the construction dam(s) are in place. Also included in the contract unit price for **Bypass Pumping** is the design, construction, maintenance, and removal of the Sediment Basin, Gravel Filter Berms or Filter Bag required to settle/filter out sediment prior to discharging back to the watercourse. If a larger or second Sediment Basin in conjunction with a Filter Bag is required to reduce sediment, this work will not be paid for separately but shall be considered included in the pay item for **Bypass Pumping**. **Bypass Pumping** will be paid on an each basis for each culvert that is installed in the dry condition.